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OF

COLLEGIATE REGISTRARS

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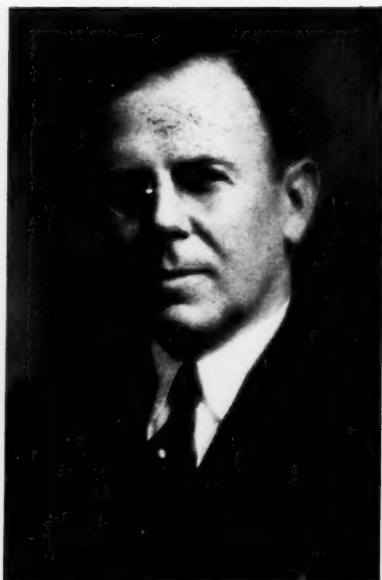
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BULLETIN OF THE AMERICAN ASSOCIATION OF COLLEGIATE REGISTRARS

Volume IX

OCTOBER, 1933

Number 1

A METHOD OF ADJUSTING SCHOOL MARKS AND CLASS RANKS TO COMPENSATE FOR VARI- ATIONS IN STANDARDS OF MARKING¹

WILHELM REITZ

It is well known that there are appreciable differences among high schools in standards of marking. The same quality of work may be marked high in one school, average in another, and poor in a third school. Among several studies relating to this variability, one pertaining to the Chicago high schools was made by Roy W. Bixler and has been reported in part in the *Journal of Higher Education*, October, 1932.² In this investigation, Bixler found, among twenty-four public high schools of Chicago, that the distribution of medians of average marks as tabulated by schools, after translation into marks on a standard scale, ranged from 79.48 to 90.25 with an approximate mean of 89.39. Obviously, the variation among these twenty-four schools was very marked. The situation appeared even more absurd when the median scores on the American Council Psychological Examination of these schools were compared with

¹ This article presents selected portions of an unpublished study entitled, "Forecasting Success of Students Under the New Plan at the University of Chicago," which was made for the Dean of Students and University Examiner of the University of Chicago.

² Reported also in the *Bulletin of the American Association of Collegiate Registrars*, VIII, 4, July, 1933.

the medians of average marks. The school with the highest median of average marks, 90.25, was second lowest, 74, in median intelligence, while the school with the highest median intelligence score, 201, had a median of average marks of only 86.89. These findings would warrant the conclusion that such variations greatly reduce the reliability of school marks as a measure for admission purposes.

What has been said of marks is also largely true of class ranks. Such a measure is even more subject to variation from school to school because in transforming class ranks into percentile ranks the variation in class size often is not taken into account.

Various studies have shown that school marks and class ranks are, excepting intelligence scores, two of the most efficient predictors of college success. As such, they have crucial functions in the selective admission practices of institutions of higher learning. Numerous attempts have been made to improve their validity and reliability to make them more serviceable to college administrators. For many years, such studies have been carried out at the University of Chicago. This present study is an effort to continue that work.

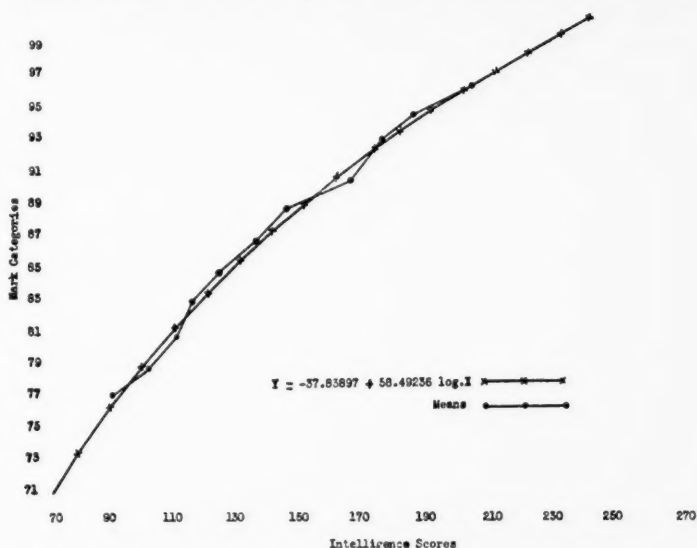
ADJUSTMENT OF MARKS

Some of the data gathered in Bixler's investigation lend themselves conveniently to a quantitative study of the relation between average marks and intelligence scores. On the basis of this study a method was developed for adjusting average marks to compensate for variations in standards of marking, using the median intelligence of the school as an adjusting factor.

In one of Bixler's diagrams,³ the average marks were tabulated in terms of the scores made on the psychological examination. The average mark categories, which ranged from 77 to 97, included a sufficient number of schools and students to justify the use of these data for deriving a quantitative expression of the relation between average marks

³ Op. cit. *Bulletin of the American Association of Collegiate Registrars*, p. 241.

and intelligence scores. A plot of the central tendencies of the data indicated the possibility of a curvilinear relationship between the mark categories and the intelligence scores. Various functions were fitted to the data. Straight line and parabolic functions were found unsatisfactory: the first, because of poor fit; the second, because extrapolation of the function beyond the range actually studied led to results



1. Logarithmic Function Expressing the Relationship Between Average Marks in High School and Average Intelligence.
(Based on Bixler's data.)

not plausible for the present purposes; namely, to the finding of a function that would assign on an average higher marks to students of higher intelligence.

In searching further for a suitable function, it was found that a logarithmic function of the type $y = a + b \log x$ would come nearest to the device sought. Fitting this function to the data by the method of least square,⁴ the following equation was finally arrived at as giving a plausible picture of the relation between medians of average marks in high school

⁴ Rietz, H. L., *Handbook of Mathematical Statistics*, p. 65.

and median intelligence scores: $y = -37.83897 + 58.49236 \log x$ in which y is symbolizing the average mark and x the raw scores on the 1930 edition of the American Council Psychological Examination.

A graphical representation of the fitted curve will be seen in Figure 1.

The use of the equation. The usefulness of this equation is two-fold: (1) it may serve the purpose of making adjustment for the variation of average marks among various high schools; and (2) it may be used to detect discrepancies between average marks and measures of intelligence in the case of individual students. For example, Bixler's data show that the high school second lowest in median intelligence had assigned the highest average marks, 90.25, of all of the twenty-four high schools. By making use of the foregoing method of adjustment and inserting this school's intelligence measure, which was 74.00, into the equation, the new mark which represents this school's relative standing among the twenty-four schools is 71.49. The difference between these two measures, which is 18.76 points, represents the desired adjustment for the median of average marks of this particular school. It would appear that a deduction of 18.76 points from the average mark of any student entering the University of Chicago from this particular high school would have resulted in a more valid index of the relative value of the student's work.

Adjustment-constants for high schools. Applying the foregoing technique to each of the twenty-four high schools in Chicago, plus or minus constants for each high school were computed. The results of these computations will be seen in Table I.

In Table I, a plus or minus sign placed before a constant signifies that for the purposes of adjustment the average mark of any student coming from a particular high school should be increased or decreased by the amount indicated. As far as the function of the measure is concerned, it makes no difference if the adjusted average extends beyond the usual limits of the range for that measure. Thus, a student

TABLE I
ADJUSTMENT-CONSTANTS FOR AVERAGE HIGH SCHOOL MARKS PERTAINING TO TWENTY-
FOUR PUBLIC HIGH SCHOOLS IN CHICAGO*

High School Number	Number in Class	Median Am. Council Psych. Exam. 1930	Median Average Marks	Adjusted Median Average Marks	Adjustment- Constants for Marks**
106	211	201.38	86.89	96.93	+10.04
120	438	150.32	84.88	89.50	+4.62
109	340	147.92	81.16	89.09	+7.93
121	483	145.15	83.28	88.62	+5.34
116	158	142.00	83.18	88.05	+4.87
117	110	131.82	84.17	86.16	+1.99
104	185	128.75	85.38	85.57	+1.19
113	431	126.78	84.18	85.18	+1.00
124	156	125.71	85.63	84.95	-.68
119	542	123.68	84.56	84.55	-.01
123	226	122.73	84.16	84.34	+1.18
110	264	122.73	80.51	84.34	+3.83
108	331	122.00	80.76	84.20	+3.44
112	394	120.50	85.27	83.88	-1.39
103	342	119.17	82.92	83.61	+.69
101	447	117.91	85.76	83.33	-2.43
105	258	115.83	81.56	82.87	+1.31
102	261	114.28	84.48	82.54	-1.94
122	187	112.28	84.74	82.09	-2.65
111	308	107.11	85.25	80.89	-4.36
115	22	84.00	84.80	74.72	-10.08
114	88	78.00	85.38	72.83	-12.55
107	33	74.00	90.25	71.49	-18.76
118	105	65.00	79.48	68.20	-11.28

* This tabulation is based on Bixler's data.

** An adjustment-constant is the difference between observed and adjusted mark.

coming from School 106 with an average mark of 95 would have an adjusted average mark of 105.

Discrepancies between a student's intelligence and mark.

It should be noted that the suggested adjustment of an individual student's average mark is not directly in terms of his own intelligence score but is derived from the median intelligence score of the senior class of the high school of which he is a member. However, after the student's mark has been adjusted for inter-school differences in marking, it may once more be scrutinized by comparison with the mark which corresponds to the student's intelligence score, as given by the equation presented in a previous paragraph. The manner in which the equation may be used is illustrated as follows: a student from School 109 with an intelligence score of 330 and an average mark of 81 would receive an adjusted mark of 81 plus 8, or 89. For an intelligence score of 330 the equation $y = -37.84 + 58.49 \log x$ furnishes an approximate mark of 110. Comparing this expected mark with the adjusted mark, it seems reasonable to conclude that this student is a problem case in the light of the prevailing relationship between average marks and intelligence scores. Such information concerning a student may be of interest to admission officers for the reason that the student in question is likely to continue to do work in college which is below his capacities. Students generally are prone to carry over into college either good or bad habits of work that have been established during their period of training in the secondary school. This method, then, serves as a very useful means of detecting possible discrepancies between the student's level of intelligence and his school marks.

ADJUSTMENT OF RANKS

Ranks in class are unreliable for the same reasons and to the same extent as are high school marks. In case they are derived from small classes they are in a sense worse than marks. Also their conversion into percentiles is quite inadequate from the point of view of using them to forecast suc-

cess in college. A tabulation by Meade⁵ of ranks in high school of the University of Chicago freshman class of 1931 indicates that they pile up in the higher intervals of the distribution. This is evident from reproduction of Meade's results in Table II. The bulking of percentile ranks in certain intervals is especially marked in institutions which set up definite admission requirements, as for instance, "to rank in the upper half of the graduating class."

TABLE II
DISTRIBUTION OF RANKS IN HIGH SCHOOL BASED
ON MEADE'S DATA

PERCENTILE	NUMBER	PERCENTAGES
90-100	285	38.4
80- 90	112	15.1
70- 80	167	22.5
60- 70	71	9.6
50- 60	48	6.5
40- 50	30	4.0
30- 40	12	1.6
20- 30	13	1.7
10- 20	4	.5
1- 10	1	.1
Total	743	100.0

Transferring ranks into linear scores. In order to obtain a statistically more satisfactory expression of a student's rank in class the procedure which Hull⁶ has developed is suggested. According to his method a student's rank in class is transferred into a per cent position by the formula $100(R - .5)/N$ in which R symbolizes the rank of a particular student and N indicates the total number of students in the graduating class. The "per cent position" thus found is transferred by means of a table⁷ into a linear score on a

⁵ Meade, R. D., "An Evaluation of the First Year Under the New College Plan of the University of Chicago Based on Student Progress and Student Opinion," Master's Thesis, Department of Education, University of Chicago, 1933.

⁶ Hull, C. L., *Aptitude Testing*, New York: World Book Co., 1928. Pp. 386.

⁷ Hull, Op. cit., p. 387.

100-point scale. A comparison of the three scales will be seen in Table III.

Since the per cent position is almost equivalent to the percentile rank, i.e. without the subtraction from 100, it can easily be gathered from Table II that, while under the common method of merely figuring the per cent and subtracting this from 100.00 to obtain the percentile, 38.4 per cent are crowding in the interval from 90-100. Whereas the same percentages of cases under Hull's scheme would be distributed approximately over the highest two and one half

TABLE III
TRANSMUTING RANKS INTO SCORES ON A
100-POINT SCALE

PERCENTILE	PER CENT POSITION	SCALE SCORE
90-100	.0 - 1.68	90-100
80- 90	1.69- 6.14	80- 90
70- 80	6.15- 15.44	70- 80
60- 70	15.45- 30.61	60- 70
50- 60	30.62- 50.00	50- 60
40- 50	50.01- 69.39	40- 50
30- 40	69.40- 84.56	30- 40
20- 30	84.57- 93.86	20- 30
10- 20	93.87- 98.32	10- 20
0- 10	98.33-100.00	0- 10

intervals, i.e. would spread between 75 and 100. The next 15.1 per cent of the cases would spread between 75 and approximately 66, etc. The new distribution would approach normality to a considerable extent. Under the assumptions that the percentiles approximate the per cent positions and that the distribution is even throughout the new intervals, the present distribution of ranks as given in Table II was redistributed according to Hull's method. The old and new percentages are given in Table IV. In addition there is shown in this table the distribution, according to Hull's procedure, of rank scores for an unselected group, such as high school seniors.

Even this rough redistribution indicates an enormous improvement in the distribution. The piling up in the upper interval is smoothed out and the bimodality has disap-

peared. In reality the distribution of ranks, according to Hull's methods, will even more nearly approach normality than indicated here, as the assumption that ranks would spread evenly throughout the different intervals, which was made in the foregoing redistribution, is not warranted.

The adoption of Hull's method not only would yield a more normal distribution, i.e., linear scores instead of percentiles, but at the same time would adjust the ranks for their dependence on class size and thus eliminate one source

TABLE IV
REDISTRIBUTION OF RANKS

PERCENTILE INTERVALS SCALE SCORE INTERVALS	DISTRIBUTION OF RANKS		
	UNIVERSITY OF CHICAGO FRESHMEN		UNSELECTED GROUP
	COMMON METHOD	HULL'S SCHEME	HULL'S SCHEME
90-100	38.4	15.4	1.69
80- 90	15.1	15.4	4.46
70- 80	22.5	16.6	9.30
60- 70	9.6	29.6	15.17
50- 60	6.5	15.2	19.39
40- 50	4.0	5.6	19.39
30- 40	1.6	1.9	15.17
20- 30	1.7	.3	9.30
10- 20	.5	.0	4.46
0- 10	.1	.0	1.67
Total	100.0	100.0	100.00

of unreliability inherent in the present scheme. The use of scores would also increase the correlation coefficients involving ranks.

Adjusting ranks for variability among high schools. The foregoing defects in the common treatment of ranks, namely unreliability due to a small class, bimodal distribution, non-linearity, are not the only ones which exist. An additional source of error is introduced through the variability of graduating classes among high schools with regard to ability and achievement. No matter how high or how low a particular graduating class ranks with respect to, say, median scholastic ability, every student ranking first will receive, according to the common treatment, a percentile rank of

approximately 100. Every student ranking half way in his class will receive a percentile of 50. To revert to Table I, School 106, with 211 students and a median intelligence score of 201, will have assigned to its 106th student a percentile rank of 50; School 118, with 105 students in the class and a median intelligence score of 65, will also have assigned to its middle student a percentile rank of 50. In case both these middle students should apply for admission to the college, they would be equal with regard to rank in graduating class, both having a percentile rank of 50. Thus in the light of a common admission standard, "to rank in the upper half of the class," it would make little difference that one student's intelligence score approximates 201 and the score of the other student tends to be 65. The unreliability of such treatment of ranks in class thus becomes obvious. Although the rank may be the same, one student may be a good risk for college while the other may be a very poor one.

The remedy. To remedy this situation the following adjustment is proposed.⁸ If each high school should rank its graduating class from the poorest to the best student, the median, or average student in terms of a percentile expression, would receive 50. The standard deviation of such a distribution of percentiles can be obtained fortunately, by the formula⁹ $S.D. = L^2/12$ in which L is the base of a frequency-distribution in which all values of the particular variable within a range of $L/2$ on either side of the mean

⁸ This course was taken because no further data were available which would have lent themselves to a quantitative study of the relation between rank in class and some other variable such as were at hand in the case of high school average marks and intelligence scores. There is of course the possibility of using median high school marks as a vehicle to adjust for the variability of ranks, since a high correlation between these two variables is usually found; for instance, for the University of Chicago freshman class of 1931 a coefficient of .72 was computed. The technique would be similar to the one described here in the case where intelligence scores served as the vehicle of adjustment, except that it would probably be best to take the adjusted medians instead of the unadjusted. The resulting adjustment constants would of course be smaller in size than those present in Table V.

⁹ Yule, C. N., *An Introduction to the Theory of Statistics*, p. 143 (10).

(here 50) are equally frequent, and values outside these limits (0 to 100) do not occur. For the present situation the standard deviation of the percentile ranks turns out to be $S.D. = 100^2/12 = 28.8675$. If it is assumed that with regard to percentile rank of the median student of the individual high schools the same variability should prevail as was found in the case of the high schools' median scores on the American Council Psychological Examination, the adjustment of these percentile ranks is merely a matter of transferring¹⁰ any particular intelligence median into a score of a series whose mean is 50 and whose standard deviation is 28.8675. Thus a new adjusted-median percentile-rank for each high school can be obtained by the equation $X' = 5452X - 16.4555$; in which X' is the new percentile rank and X the median intelligence score of the particular school. An example will illustrate this process.

The median student of School 106, who is in a graduating class of 211, will receive a percentile rank of 50. However, in comparison with other high schools, the median psychological score of School 106 is 201.38. Assuming that the median rank should correspond to the standing of the high school, as given by the foregoing formula, it can be found that $(X' = 5452 \times 201.38 - 16.4555 = 93.3)$ the median student should receive a percentile rank of 93.3 instead of 50. Ranks for this school should be adjusted accordingly by adding a constant of 43.3 to all ranks submitted. Thus, the best student, who now receives a rank of 100, should receive an adjusted rank of approximately 143. Similarly, the best student coming from School 118 should receive a rank of only 69 instead of 100. The various constants to be added or to be subtracted are presented in Table V.

By subtracting a plus-constant from 50 and by adding a minus constant to 50 that critical rank is found which is equivalent to a rank of 50 under the old scheme. To meet a standard of "ranking in the upper half of the class" a student from School 106 should have an adjusted percentile rank of at least $50 - 43 = 7$ or higher; or, in the case of School

¹⁰ Hull, *op. cit.*, p. 397.

TABLE V
ADJUSTMENT CONSTANTS FOR RANKS IN HIGH SCHOOLS PERTAINING TO TWENTY-FOUR
PUBLIC HIGH SCHOOLS IN CHICAGO*

No. of School	No. in Class	Median Am. Council Psy. Exam. 1930	PERCENTILE RANK ASSIGNED TO MEDIAN STUDENT BY		DIFFERENCE BETWEEN COMMON AND PROPOSED METHODS ADJUSTMENT-CONSTANTS FOR RANKS
			COMMON METHOD	PROPOSED METHOD	
106	211	201.38	50	93.3	+43.3
120	438	150.32	50	65.5	+15.5
109	340	147.92	50	64.2	+14.2
121	483	145.15	50	62.7	+12.7
116	158	142.00	50	61.0	+11.0
117	110	131.82	50	55.4	+5.4
104	185	128.75	50	53.7	+3.7
113	431	126.78	50	52.7	+2.7
124	156	125.71	50	52.1	+2.1
119	542	123.68	50	51.0	+1.0
123	226	122.73	50	50.5	+0.5
110	264	122.73	50	50.5	+0.5
108	331	122.00	50	50.1	+0.1
112	394	120.50	50	49.2	-0.8
103	342	119.17	50	48.5	-1.5
101	447	117.91	50	47.8	-2.2
105	258	115.83	50	46.7	-3.3
102	261	114.29	50	45.9	-4.1
122	187	112.28	50	44.8	-5.2
111	308	107.11	50	41.9	-8.1
115	22	84.00	50**	29.3	-20.7
114	88	78.00	50	26.1	-23.9
107	33	74.00	50	23.9	-26.1
118	105	65.00	50	19.0	-31.0
Total Mean Sigma	6,320	121.892 52.9482		50.0 28.8675	

* This tabulation is based on Bixler's data.

** If no. in class is less than 100, middle student will receive a percentile rank slightly less than 50.

108, should rank 50 or better; or, in School 118, should rank $50 + 31 = 81$ or higher. From one school approximately the upper 93 per cent of students may be admitted, from another just the upper 50 per cent, and, in the case of the school mentioned last, only the upper 19 per cent.

To gain the advantage of having ranks adjusted simultaneously for both, the variation in class size and the variation from high school to high school, the two proposed adjustment schemes may be combined into one. The only change that is necessary is to assume a different standard deviation for ranks, because the score distribution yielded by Hull's conversion method would have a smaller standard deviation than is assumed at present for the percentile rank distribution. The standard deviation for Hull's linear scores is approximately 19.0575. It can be obtained by calculation from a distribution of a large number of cases, perhaps 10,000, distributed according to Hulls' procedure and with the appliance of Sheppard's correction formula. Since the rank score for the median in each high school remains 50, the new equation for adjusting ranks becomes $X' = .3599X + 6.1278$, in which X' is the new rank-score and X the median intelligence score of the high school. In applying this equation to Bixler's data it is found, in the case of School 108, that the proposed rank score for the median student is approximately 50.0. For School 106 it is 78.6, so that the adjustment constant for this school is $+28.6$. Other schools can be treated similarly. It becomes at once obvious that under the combined schemes adjustment constants become considerably smaller. This, of course, is due to the introduction of the linear score feature.

Wherever adjusted measures are used, the fact that some of these will fall outside of the usual range of such measures should not be a disturbing factor. An interpretation of their function should naturally be made in the light of the purpose of the whole adjustment scheme.

All adjusted measures can easily be used in simple and multiple forecasting equations, although such equations are commonly based on "unadjusted" marks and ranks. The

feature of being readily usable in regression equations seems to the writer an advantage of the proposed scheme over other schemes proposed recently.

In this scheme it is naturally assumed that the variability found among the high schools studied is fairly consistent over a number of years. At least it must be kept in mind that a periodical re-check of these differences"¹¹ is necessary. This should not be impractical where a state-wide testing program is in effect.

¹¹ The writer has worked out a statistical technique by which such institutional differences may be studied more satisfactorily than heretofore. Publication of this paper will occur in the near future.

Editor's note:—In a subsequent article Mr. Reitz will report a study in which the adjusted measures proposed have been used in forecasting success in college.

THE COLLEGE

Up from the high schools today there are coming two groups of students: a non-professional group and a pre-professional group. For the former group there should be provided a new type of college, with a three-year course, devoted primarily to education for the five fields of social living.* For the latter group the existing four-year college will continue to serve: but it should, in the first place, recognize and capitalize the division into upper and lower halves; in the second place, devote its lower half primarily to education for the five fields of social living; and in the third place, conceive the task of its upper half as being essentially an endeavor to further the maintenance and the development of human society—a society shot through with problems which menace its very existence, a society rich in the possibilities of an as yet undreamed—of fullness of life.—Ernest Hatch Wilkins, in *THE COLLEGE AND SOCIETY*.

* Home life, earning, citizenship, leisure, philosophy, and religion.

STUDY HABITS OF FAILING FRESHMEN

ROBERT L. WILLIAMS

THE PROBLEM

Many quantitative analyses have been reported which dealt with the number of failing students, the amount of time students spend in studying, as correlated with the success of studying, or grades, and other such factors. There have been fewer studies dealing with the qualitative analyses of the academic activity of college students. Recent discussions by prominent educators have brought to light much quantitative data regarding the study habits of college students. These discussions have concluded that there is no relationship between the amount of time spent in study and the quality of accomplishment. In other words, students who spend the largest amount of time studying frequently learn least. Such discussions concluded at this point without considering the qualitative aspects of the study habits of college students. It seems obvious from the conclusion reached that academic success depends as much upon the quality as upon the quantity of study.

The following pages present a discussion of the qualitative characteristics of the study habits of 94 students who were freshmen during the session of 1931-32 at the Mississippi State College for Women. These 94 students were reported by their teachers, at the conclusion of the first mid-semester, the first semester, or the second mid-semester, as having less than a passing average in one or more subjects. Each of these 94 failing students was interviewed one or more times, were given reading tests, and their study habits were surveyed with the use of a mimeographed schedule. The validity of the information regarding the study habits of this group of failing students depends upon the honesty of the students concerned. The following directions were placed on the first page of the survey of study habits:

"In the following pages you will find a series of questions dealing with study habits. You are asked to answer each question in such a way that the Division of Educational Research¹ will be able to get from your answer a complete description of the way in which you study.

"The sole purpose of this survey is to discover the inefficient habits of study, if any, which you are now using that probably contribute something to the unsatisfactory status of your academic work at the present time.

"When you have answered all the questions asked about your study habits, you will be informed of any difficulty that you may now be experiencing due to study difficulties. Recommendations will be made to you indicating ways of avoiding these difficulties that, if put in practice, will do much toward removing the difficulties indicated.

"Remember that the sole purpose of this survey is to help you. For that reason, ANSWER EACH QUESTION AS TRUTHFULLY AS YOU CAN. To cover up your true habits of study makes it impossible for this office to aid you along these lines.

"The privacy of your name and your answers will be strictly respected."

In addition to securing the above-mentioned information from the students, the teachers under whom the students made failing grades were asked to give their opinions regarding the factors that probably contributed to the unsatisfactory work of the student.

It is the purpose of this discussion to present an analysis of the data secured from the sources mentioned and to suggest opportunities that will perhaps enable the adviser and the student to eliminate at least some of the factors that are thought to have caused unsatisfactory work.

THE DATA

Characteristics of Failing Students. The 94 failing students of the session 1931-32 are, as a group, somewhat inferior in intelligence and in information acquired in high school to the entire freshman class and to the freshmen who did not make failing grades in any subject. The class as a whole is somewhat inferior to the members of the class that did not

¹ The writer was Director of Educational Research at the time this information was collected.

make any failing grades during the session. This is shown in Table I which shows the percentile ranks of the intelligence quotients of the failing students, the entire class, and non-failing students. Table II presents the same data regarding the students' knowledge of English grammar, as meas-

TABLE I
PERCENTILE RANKS OF I.Q.'s DERIVED FROM OTIS
INTELLIGENCE TEST

PERCENTILE RANKS	FAILING STUDENTS	ENTIRE CLASS	NON-FAILING STUDENTS
100	119	124	124
95	113	118	119
90	111	117	118
85	109	115	117
80	108	113	116
75	107	112	115
70	106	111	114
65	104	110	113
60	103	109	112
55	102	108	111
50	101	107	110
45	99	106	109
40	98	104	108
35	97	103	107
30	96	102	106
25	95	100	105
20	93	99	104
15	92	96	102
10	90	94	101
5	87	91	100
0	80	80	90
S.D.	7.75	8.05	7.4
Number of stu- dents	94	236	142

ured by the Cross Test. Table III presents information for the three groups coming from the Markham Vocabulary Test. Table IV presents the results of the American Council History Test.

An analysis of Tables I to IV brings out three facts:

1. The scores made by failing students entitling them to a given percentile rank, are in each test, inferior to the score made by the entire class entitling them to the same percentile rank. Furthermore, the scores made by these stu-

dents are inferior to those made by the non-failing students entitling them to the same percentile rank. Table I, for instance, shows that the 50th percentile rank for failing students represents an I. Q. of 101; for the entire class it represents an I. Q. of 107; and for the non-failing students it represents an I. Q. of 110.

TABLE II
PERCENTILE RANKS IN CROSS GRAMMAR TEST

PERCENTILE RANKS	FAILING STUDENTS	ENTIRE CLASS	NON-FAILING STUDENTS
100	169	174	174
95	158	166	168
90	151	163	165
85	147	160	163
80	144	157	161
75	142	154	159
70	140	151	157
65	137	149	155
60	134	147	153
55	132	144	151
50	130	142	149
45	128	140	147
40	126	138	146
35	125	135	144
30	124	132	142
25	122	128	140
20	120	126	137
15	113	123	134
10	107	118	127
5	101	107	121
0	95	95	100
S.D.	15.90	16.75	14.35
Number of students	94	236	142

2. The standard deviation is generally conceded to be the most useful measure of dispersion in dealing with groups of data. The standard deviation is computed for the three groups of students in each table and appears as next to the last line of each table. A measure of dispersion in data of this type is a good measure of homogeneity or heterogeneity of the groups involved. A study of Tables I to IV will show that the standard deviation is smaller for non-

failing students than for failing students, and, with one exception (American History) it is smaller for each of these than for the entire class. The sizes of these standard deviations indicate relative homogeneity of the groups. The standard deviation of failing students is second in size, indicating that they are less homogeneous, and the standard

TABLE III
PERCENTILE RANKS IN VOCABULARY TEST

PERCENTILE RANKS	FAILING STUDENTS	ENTIRE CLASS	NON-FAILING STUDENTS
100	104	139	139
95	98	108	110
90	93	103	107
85	91	100	104
80	87	97	101
75	84	95	98
70	81	93	97
65	79	90	95
60	77	88	94
55	75	86	92
50	73	84	90
45	71	82	88
40	70	80	86
35	68	76	85
30	66	74	83
25	65	71	81
20	61	68	78
15	54	65	73
10	49	60	69
5	44	51	62
0	35	35	55
S.D.	15.5	17.80	14.75
Number of stu- dents	94	236	142

deviation for the entire class is the largest of the three, indicating that the entire class is more heterogeneous than the two smaller groups. Table I, for instance, shows that the standard deviation of the I. Q. of the entire class is 8.05; whereas the standard deviation of the failing students is 7.75, and of the non-failing students, 7.4. This coupled with the percentile ranking means that insofar as intelligence alone is concerned the non-failing students have a higher

average than the other groups. The failing students with a standard deviation of 7.75 rank second in homogeneity, and the entire class is more heterogeneous insofar as intelligence is concerned than the two smaller groups in question. This same line of reasoning may be applied to Tables II, III, and IV.

TABLE IV
PERCENTILE RANKS IN AMERICAN HISTORY TEST

PERCENTILE RANKS	FAILING STUDENTS	ENTIRE CLASS	NON-FAILING STUDENTS
100	89	114	114
95	68	86	89
90	61	75	83
85	54	69	76
80	52	65	71
75	50	62	67
70	47	57	65
65	44	56	62
60	42	53	60
55	39	50	58
50	38	48	56
45	36	45	53
40	35	43	50
35	33	41	48
30	30	39	45
25	28	36	43
20	25	32	41
15	21	28	37
10	17	24	29
5	11	20	24
0	5	5	20
S.D.	10.75	20.10	14.75
Number of stu- dents	94	236	142

3. Some failing students undoubtedly have the native ability and the high school training to do acceptable college work. Table I, for instance, shows that one student who has an I. Q. of 119 was failing at one of the times considered in this study. An I. Q. of 119 is undoubtedly sufficient for the successful performance of college work. Tables II, III, and IV indicate that there is a large number of students with sufficient high school training, as measured by the tests in questions, to do acceptable college work.

TABLE V
INSTRUCTORS' OPINIONS REGARDING CAUSES OF
FAILURE IN FRESHMAN CLASS OF 1931-32

RANK	CAUSE OF FAILURE	FRE- QUENCY
1	Insufficient industry shown by student.....	56
2	Student uses an inferior technique of studying.....	50
3	Insufficient high school preparation (quantity).....	43
4	Student possesses apparent inability to read under- standingly.....	39
5	Intellectual immaturity.....	35
6.5	Excitable when working under pressure.....	31
6.5	Student has difficulty in taking notes on class lec- tures or other materials given out in the class room, making it appear that she does not profit from the general exercises of the class.....	31
8	Course too advanced for student's present academic level.....	23
9	Student seems unable to interpret scientific data correctly.....	18
10	Failure to pay attention in class.....	16
11.5	Student's previous high school training (Quality) hinders rather than helps in present academic situation.....	13
11.5	Class room inefficiency due to undue haste in labo- ratory work, written exercises, etc.....	13
13	Student possesses an apparent difficulty in keeping a notebook on outside reading, laboratory work, etc.....	12
14.5	Student seems unable to manipulate laboratory ap- paratus.....	11
14.5	Student seems unable correctly to observe labora- tory materials and reactions.....	11
16	Student has difficulty in recording observations and experimental data correctly.....	10
17.5	Student possesses an indifferent, don't care attitude toward class work.....	8
17.5	Student seems worried over personal problems (finance, social problems, etc.), which may affect class work.....	8
20	Harmful influence of associates—that is, friends who do not offer the student any incentive for successful work.....	7
20	Physical condition of the student as shown by illness causing absences.....	7
20	Student fails to hand in assigned work on time.....	7
22	Excess absences from class.....	5
23.5	Disciplinary difficulties in class.....	2
23.5	Student engages in too many activities, which do not further academic standing.....	2

These students who have the native ability and the educational background to do successful college work, but who fail one or more subjects, constitute the most serious problem in educational guidance. They can be spared the embarrassment of failing and the waste of time and money if they can be properly motivated. The work of the guidance counselor in dealing with this group of students is primarily a problem of motivation. They are good college material and can become successful college students if their advisers can get them to work. Their work must be done efficiently if maximum results be obtained.

Teachers' Opinions Regarding Failing Students. Each teacher who reported a failing grade for a member of this group of 94 freshman students was asked to give her opinion regarding the probable cause of the student's failure. These opinions have been summarized and are presented in Table V. In summarizing instructors' opinions, each probable cause of a student's failure was counted only once for a given student. If, for instance, a student received a failing grade under two teachers, and they both reported the same cause of failure, this cause was counted only once.

An analysis of the probable cause of student failures, as reported by the teachers of the failing students, will indicate that many of these causes can be eradicated, and many of these students will, then, perhaps, be able to do successful college work. Some of the causes of failure reported by the teacher can be eradicated in the class room if the teacher can give a small amount of time to such general problems as how the student should keep her notebook on class discussion, on outside readings, on laboratory work, etc. This type of guidance can be accomplished best by the classroom teacher rather than the freshman adviser. It is generally believed that the first few days of each semester, when used in orientation lectures, introducing the students to the type of work they are to do, how they can best do it, and the standards their work will be judged by, will help many students. The adviser can be of service in remedying the most

frequently mentioned cause of difficulty, "Insufficient industry shown by student."

Study Habits of Failing Students. This report does not contain any evidence regarding the study habits of successful college students. If this information were available it would be possible to compare the study habits of successful college students with the study habits of unsuccessful college students. Some recent investigations in study habits have concluded that the better college students frequently do not observe the best procedure in studying. It may possibly be said of this group that they succeed in spite of poor study habits. It stands to reason, however, that students who are unsuccessful should observe certain well-established principles of efficient study.

The following summary presents in the order of importance, as determined by the frequency of mention, certain specified study difficulties noted in the study habits of the failing students, which, if remedied, will, in all probability, be of benefit to the students in removing their academic difficulties. All of the difficulties mentioned were found in at least ten per cent of the 94 students considered in this report. Some of these difficulties were discovered in the study habits of half of the group.

1. Failure to observe a time schedule. These students do not have any particular time for studying each day, nor when they sit down to study a given subject do they allow themselves a given amount of time for the completion of the work. It is highly probable that unsuccessful students using this procedure find that so many other things make demands on their time that they do not get to study as much as they should.

2. Failure to use the proper technique in reading an assigned lesson. These students characteristically devote their first reading to a mastery of details and the second reading to getting a general outline of the material discussed. The better student, as a rule, reverses this procedure and lets the first reading be concerned with the outline and the second

reading with details. This criticism does not consider the rate or comprehension of reading, for that will be discussed later, but deals with the use of reading as a tool in studying.

3. Failure to review at short intervals the larger essentials of the material covered to date in the subject failed.

4. Failure to spend two or three minutes before the formal recitation hour in recalling the material learned while studying.

5. Poor physical conditions and surroundings while studying, including environmental conditions, posture, noise from roommates, etc. This is frequently associated with the student's failure to start studying immediately after placing herself in the proper place for studying—for example, a student goes to her room, sits at her desk, picks up a book, and, instead of beginning work immediately, postpones it some ten or fifteen minutes day dreaming, chatting with a roommate, or doing something else entirely unrelated to studying.

6. Failure to take notes in class on lectures, laboratory work, in organized form, or to organize them after class.

7. Failure or inability of the student to concentrate. As the student studies her attention wanders back and forth between the material being studied and other things. This is usually accompanied by the student's failure to begin again the study process when she discovers her attention has wandered.

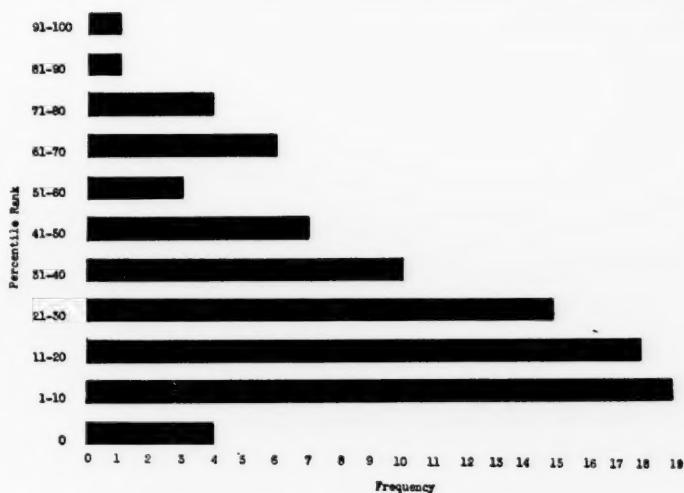
8. Failure to inform their teachers of class room difficulties and request their aid.

9. Failure, when they begin work in preparation of a given lesson, to know exactly what they are expected to learn from this material. This difficulty frequently may be avoided if the teacher will spend more time in making assignments in order to be sure that each student knows exactly what is to be accomplished in the preparation of a given lesson.

10. Failure, after they have completed their study of a particular assignment, to organize this material in a coherent form through the use of an outline or by thinking over the material in order to arrange it in orderly sequence in their minds even though an outline is not used.

11. Failure to relax for a minute or so every forty-five minutes or an hour when working under pressure. The muscles of the eye become fatigued and the body becomes cramped from remaining in one position and the student frequently becomes fatigued physically but thinks she is mentally fatigued and unable to go on.

Reading Difficulties of Failing Freshmen. The preceding unit of the discussion referred among other things to a stu-



1. Reading Scores of 88 Failing Students in Whipple's High School and College Reading Test.

dent's proper use of reading as a tool in acquiring information, and it was pointed out that many students who are good readers, mechanically speaking, make poor use of their reading ability. In collecting information regarding the reading ability of failing students use was made of Whipple's High School and College Reading Test, which is generally conceded to give an acceptable measure of a student's ability in this field. Scores coming from Whipple's reading test are interpreted by means of the percentile rank. Students having a percentile rank of 20 or less are such poor readers that they will have difficulty in acquiring a college

education. Figure I shows that 41 of the failing students were such poor readers that they would experience difficulty in pursuing their college studies. This is almost half of the total group of failing freshmen. Figure I also indicates that slightly more than half of the failing students possess reading ability to do successful college work. As was said in consideration of Tables I to IV, the primary problem with this group is one of motivation or getting them to make use of the abilities at their disposal. Many of the students, whose reading ability at the first of the year was distinctly inferior, could have been shown and were shown how to improve their reading. In dealing with individual students, however, it is virtually impossible to have time enough to render the most service possible to each student.

Elimination of Failing Students. It is extremely difficult during financial depressions to hazard a guess regarding the effect of money matters upon a student's return to college. If one can assume that financial problems weigh heavily in general upon the parents of all freshmen of the 1931-32 session, it becomes obvious that a failure takes its toll in the elimination of college students. Fifty-one per cent of the failing freshmen of 1931-32 are not on the campus this year. Thirty-five per cent of the entire freshman class of 1931-32 are not on the campus this year, and twenty-five per cent of the freshman class of 1931-32, who did not fail any subjects, were eliminated. In other words, a smaller percentage of successful college students are eliminated even during times of depression than of the unsuccessful students during the same period. If legitimate means of improving a student's reading ability, study habits, motivation, and other factors that will make successful students of the failing group can be found, it is entirely probable that there will be a smaller percentage of students eliminated between the freshman and sophomore years.

SUMMARY AND CONCLUSIONS

This study has presented a partial analysis of the characteristics of 94 students, members of the freshman class of 1931-32, who were reported as failing in one or more sub-

jects at the end of the first mid-semester, the first semester, or the second mid-semester. This group of failing students, on the average, possesses less native endowment and left high school with poorer preparation than did the entire freshman class of 1931-32. The group of students in the freshman class of 1931-32 that did not fail any subjects at the three specified times is superior both to the class as a whole and to the group of failing students. There is serious overlapping between the characteristics of the failing students and of the successful students. Many failing students possess native ability and received sufficient training in high school to enable them to become successful college students. It would seem that this group of students may be saved the embarrassment and cost of failure if they can be properly motivated. One of the most important contributions that a faculty adviser can make to his or her group is that of motivation.

The preceding pages also presented evidence showing that approximately one-half of the failing freshmen considered in this group have not sufficient command of the reading process to do acceptable college work.

Additional data were presented showing the most common difficulties noted in the study habits of failing students. There is a wealth of data available in the library at the present time that will enable one to help students avoid these difficulties. It is believed that freshman faculty advisers can, without lecturing or "preaching" to the members of their group, keep these common difficulties in mind and make incidental suggestions from time to time that will help their students build up good study habits.

This study also presented evidence that fifty-one per cent of the failing freshmen of 1931-32 did not return to the campus this year (1932-33) whereas only twenty-five per cent of the successful students failed to return. This information regarding elimination constitutes sufficient evidence to justify the entire administrative and instructional staff in making use of any legitimate device that may enable the group of unsuccessful students to be materially reduced in size.

DUPLICATION OF COURSES

H. S. RUMMELL

Duplication of course-material follows closely upon expansion of course offerings. The classic and scientific curricula of forty years ago could no doubt have furnished examples of duplication, but the tendency to overlap increased greatly with the appearance of vocational and pseudo-professional courses in the curricula of our colleges and universities. Demands for specialized training in many new fields are met by specialized curricula built upon new and experimental courses. College teachers, especially the younger ones, are inclined to respond with alacrity to any demand or rumor of demand for new courses. The necessity of faculty approval presents no serious obstacle; faculties, traditionally respectful toward organized matter, give only the most perfunctory consideration to the content of proposed courses. Complete sequences of these courses, often mere particularizations of the obvious, appear where formerly none had existed. That they overlap each other, are thin, forced, and artificial in content, should not be surprising; the demand for these courses by those who want the professional label they confer is simply greater than the supply of sound course-material available.

In the University of Missouri an attempt was made recently to determine where, and to what extent, duplication of course-material existed. Perhaps a brief account of the method of attack on the problem might be of assistance to other institutions which, under pressure of necessity, are making strenuous efforts to economize. Certainly there can be little justification for the extravagance inherent in duplication.

The faculty committee which undertook the investigation soon realized the magnitude of their task. The hundreds of courses offered in a large university of complex organization represent a vast and unwieldy mass of material familiar only

in fragments to the respective teachers and, perhaps, to a few of the brighter students. The difficulty was largely in choosing a method of attack.

It was agreed, as a preliminary step, to have each member of the committee survey independently the course offerings shown in the general catalog of the University for what appeared to be possible cases of duplication, whether between courses in the same department, courses in different departments in the same division, or courses in different divisions. The preliminary survey resulted in the discovery of well over a hundred cases involving several hundred courses.

The familiarity of the various members of the committee with the contents of some of the courses which had been placed under suspicion made it possible to dismiss a few of them without further investigation. The remaining pairs or sets of courses which appeared to overlap seriously were formed into "cases" and outlines of these courses were obtained from the instructors. The outlines and all material relative to the cases were assembled in folders for convenience in handling; for example, the outlines of all courses dealing with the problems of child welfare, whether offered in the department of education, home economics, sociology, rural sociology, or psychology, were placed in a folder and the case identified by a serial number. One hundred and ten cases, involving 403 separate courses, were prepared for analysis.

As soon as all available information on a case was assembled it was assigned to a sub-committee for study. The sub-committees, which included one member from each of the divisions represented by the courses comprising the case, and a neutral member, found that in many instances it would be necessary to have additional information concerning the courses which only the instructors could supply. Accordingly, interviews with the instructors were arranged in which difficulties were discussed in the light of first-hand information. The results of the analyses, with recommendations for disposal of the cases, were reported to the full

committee, which either referred the cases back to the subcommittees for further consideration or approved the reports for inclusion in the report of the committee as a whole.

It was necessary, of course, to agree upon and adopt guiding principles or criteria. Duplication was held to exist where there was a substantial repetition of subject matter in two or more courses. Duplication was held to be justifiable where similar material found in two or more courses could not be restricted to one of the courses without sacrificing the best interests of the students concerned; while duplication was held to be unjustifiable where similar material found in two or more courses could, in the judgment of the committee, be restricted to one course. In cases where unjustifiable duplication was found a presumption was raised in favor of the course offered by the department to which that course was generic. However, special consideration was given to other relevant factors, such as the facilities or equipment of the department, special qualifications of the teachers concerned, and the value of correlation and articulation with other courses in the curricula.

As a result of the committee's study more than a score of courses have been discontinued, and the contents of many others altered to obviate duplication. In a number of cases, exclusion of material of dubious value made it possible to reduce the credit hours of the courses, and, consequently, the teaching time required.

As important, however, as the substantial economies realized, is the value of the study as a self-appraisal. The close scrutiny to which the course offerings of the University were subjected resulted in the discovery of many loose practices and discrepancies in the curricula which had existed for years. There were, to mention a few of these, inaccuracies in the catalog statement of courses, undue variation in standards of work and character of prerequisites in courses whose numbers indicated the same levels of instruction, and considerable diversity in character and quality of work classified as research.

The committee saw early the necessity of replacing the

laissez faire attitude toward expansion of course offerings with a system of close control. Rampant duplication existed largely because nothing had been done to prevent it. Adequate supervision of the approval of new courses, facilities for obtaining complete information relative to the content of courses offered in the University, collaboration between departments and divisions in the delimitation of fields—these means of control were either lacking or imperfectly developed.

To correct this situation, the committee recommended that representatives of the general faculty be appointed to review all new courses to be added to the curricula. In order that this special committee might function effectively the committee also recommended that there be made readily available, for comparison with the content of proposed courses, comprehensive outlines of all authorized courses in the University, these outlines to be filed in the office of the registrar.

Thus, a certain registrar may soon append the title "Custodian of Learning." Fortunately the title will carry with it no obligation to evaluate these records.

THE RELATION OF TEACHERS' MARKS TO INTELLIGENCE

CLARENCE F. ROSS

There is no way of measuring absolutely or accurately the fairness of a teacher's estimate of the standing of a student in his classes, or of being certain that two teachers have any common norm by which to measure their products. It is common knowledge that some men are "stiff markers" and others so lax that their "snap courses" are crowded with the inefficient, but this knowledge is not verified by the grade reports.

We have tried various ways of overcoming this with only indifferent success. We have attempted to fix artificial standards of marking and to mould all courses into the same grooves. We have, for example, somewhat arbitrarily decreed that each teacher should have, say 10 per cent A's, 20 per cent B's, 40 per cent C's, 20 per cent D's, 10 per cent E's and F's. That this is arbitrary is clear from the fact that others with as much plausibility and proof assign a different set of percentages. This solution has not been successful. Again, we have arranged students, theoretically, in the order of excellence and have arbitrarily decreed that the unfortunates at the bottom are to be denied passing grades, though in given instances it is difficult to be sure that anyone in the class has actually deserved a failure.

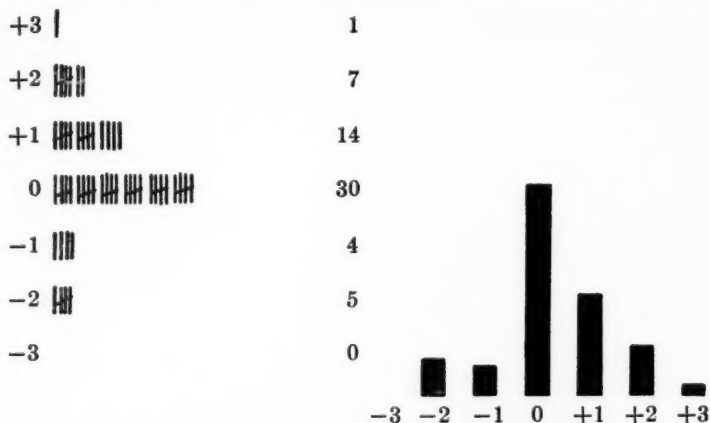
Registrars have for years published to their faculty each semester a comparison of grades, showing for each department and for each teacher the percentage of A's, B's, C's, etc., and the average percentage grade of all his students. This, doubtless, has been of some advantage in drawing the records from both extremes toward the common average for the college. However, we have, all the time, felt the futility and inaccuracy of the whole procedure, because it is based on the unwarrantable assumption that Mr. A's report as a whole should coincide with Mr. B's; otherwise it would

indicate that one is a more rigorous marker than the other. My belief that this assumption is unwarrantable was brought about by a checking for a number of semesters of two departments in which there were consistently grades above the college average, and a larger percentage of records at the A end of the scale. I compared the grades of all the students in each of the two departments with all their other grades and found that these two departments uniformly gave an average lower grade than others, and yet our comparative report showed them giving much higher grades. The injustice of the published comparative report was obvious. The reason for it was equally clear. Both departments gave courses that were wholly elective. Students registered in these courses took them because they were interested. The result was, as of course it should be, that these departments had a better class of students than the average of the college, and should give higher grades, to be commensurate with others.

But how can we know which classes have a higher average of students except on the basis of somebody's fallible judgment? Of course, we can't know with certainty. There is, however, a fairly modern measuring stick, which has come into pretty general use, which helps somewhat. That is the psychological, or intelligence test. Many of us have for a time been observing with much interest the prognostic value of the American Council Psychological Examination given to entering freshman. The fairly general reliability of this test suggested the use of it as a norm by which to measure a teacher's marks, not with the idea of achieving accuracy—that is clearly impossible—but in the hope of getting a sounder method of judgment. We have been saying all along that we cannot expect a C student in intelligence to achieve A grades, that it is as bad for an A student to make C grades as for a C student to make E grades. Why not, then, consistently say that under normal conditions, and with the assumption that students are working with some relation to their ability, a teacher should not give B students A or C grades? Why not assume that if a teacher persistently gives

a C student an A or B grade, he is marking too high, and that if he gives the same student a D or an E grade he is marking too low? Of course this assumption would be wholly unfair in individual instances, but in the whole group of a department, it would, in my judgment, be justified. It was on the basis of this reasoning that last year a new study was made of the marking systems of our faculty. It was illuminating enough, I think, to bring to wider publicity.

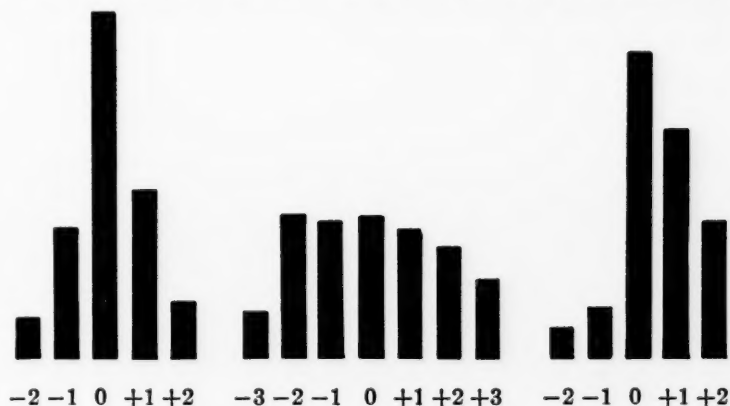
We first took as the basis of the study the percentile rank of our students as shown by the American Council Psycho-



1. Distribution of a teacher's *relative to intelligence* marks.

logical Examination, using, of course, the nation-wide norms. Each student was, therefore, labelled A, B, C, or D. A score sheet was arranged for scoring all the students in a given department. If a C student received a C grade, he was scored on that sheet 0. If he received a B grade he was scored +1, indicating that his score was one point higher than might be expected. Similarly if a D student received an A grade he was scored +3, and if a B student got a D grade he was scored -2. It is clear, I think, that a theoretically ideal grade would be zero. Figure 1 represents a complete distribution of a teacher's converted grades, indicating by the prevalence of plus grades that the teacher had

a tendency to mark too high relative to the material he had to deal with. The more the pyramid skews to the right or plus side, the greater the proportion of excessively high grades; the more toward the left, the smaller the proportion of excessive grades. It is clear that the steeper and more



2. Three types of distributions of relative marks.

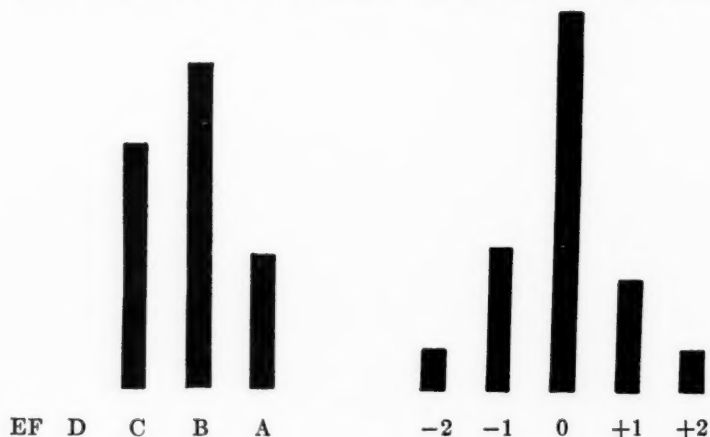


3. Absolute marks of one teacher converted into relative marks.

regular the pyramid, the more perfectly the marking coincides with the intelligence.

Figure 2 shows three types of distribution, (1) a large percentage of relatively correct grades, (2) grades with no apparent relation to intelligence and badly distributed, and (3) grades clearly excessively high.

The result of the study made of our own teachers' marks showed some features of interest. Figure 3 shows the record of the professor at the head of one of the departments mentioned earlier in the paper. At the left are his marks on the absolute system; at the right, the same marks scored in relation to intelligence. If we trust to the absolute grades we must conclude this teacher is an easy marker. The relative grades, however, show that he is a hard marker. Another example illustrating the same thing is shown in Figure 4.



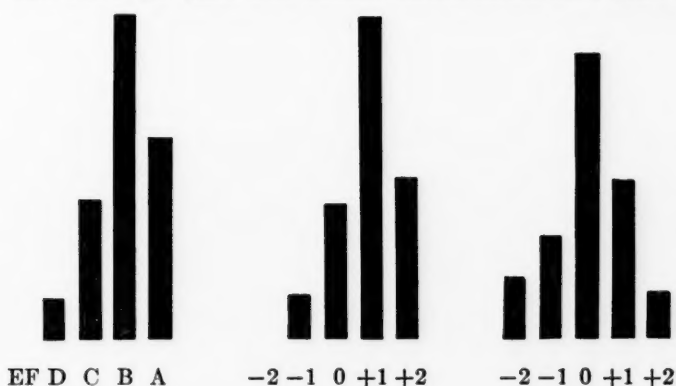
4. Absolute marks of another teacher converted into relative marks.

The published absolute report of a teacher with too many high grades is shown. On the basis of this report the head of his department called his attention to the apparent fact that his grades were too high. When the report showing grades relative to intelligence came out the instructor's record resulted as on the right of Figure 4, one of the most satisfactory records in the whole college.

It is then, I trust, clear that any comparison of grades which does not take into consideration the quality of the students involved is subject to serious error. The writer is not foolish enough to assert that this method is free from error, because no one can guarantee that a student works up to his intelligence ability. But it is part of the teacher's

task to inspire him to do just that. As a measure of a teacher's grading, however, it is believed that is a much closer approximation of accuracy than the usual method, because it alone recognizes the quality of the raw material.

Just an additional word as to the effect of such a report as was made to our faculty last year. One of the worst offenders, a first year man, showed an absolute record with grades excessively high, and a *relative to intelligence* record also too high (first and second distributions in Figure 5).



5. Absolute marks converted into relative marks and the same teacher's record the succeeding semester.

As was indicated by both systems of marking, therefore, there could be no question that this man was marking altogether too generously. Whether his department head said anything to him about it I do not know, but it is interesting to note that his absolute record last semester indicates a very marked reform. The general effect of the published study was to reduce the number of grades at the extremes of the scale.

It is clear, of course, that this method of evaluating grades if used regularly would induce some teachers artificially to modify their grades to fit intelligence records to which teachers have access. It is best used at irregular intervals as a check on the other methods of determining the correctness of a teacher's marking habits.

EDITORIAL COMMENT

WHAT HAPPENED TO THE ILLINOIS RESOLUTION?

Readers of the *Bulletin* may recall that an editorial was published in the April, 1933, number entitled "The Relation of the Sectional Associations to the National Association." This editorial was inspired by a resolution of the Illinois Association of Collegiate Registrars, the full text of which, as submitted to the national association at the last meeting, was published on pages 437 to 439 of the July, 1933, number of the *Bulletin*.

At the end of the meeting some members of the Illinois association were confused as to what had happened to their resolution. Possibly there were others who did not understand how the resolution was handled.

The Report of the Committee on Association Policy, published also in the July, 1933, number of the *Bulletin*, recommended the appointment of a committee of five to consider the advisability of some program of alternating sectional and national meetings and the advisability of affiliating with certain kindred organizations. The Association authorized the appointment of this committee and referred the Illinois resolution to it.

The advisability of disposing of the resolution in this manner may be questioned because the problem defined by it involves much more than the alternation of meetings. In considering the resolution the committee should recognize this and be guided not only by the definition of the problem in the resolution, but also by the discussion that constituted the background of the resolution. This discussion is summarized in the editorial previously mentioned.

THE AFFILIATION PROPOSAL

During the past year the officers of certain national organizations, such as the College Personnel Officers Associa-

tion and the American Vocational Guidance Association, have approached officers of our association proposing a certain degree of coöperation, or affiliation, looking toward the reduction of duplication of professional activity and a union of the several organizations in the study of common problems. Obviously, such a relationship would produce certain advantages for our association.

The Associations with which it is proposed that we affiliate meet in February, at the time of the meeting of the Department of Superintendence of the National Education Association. To make the best of the opportunity, it would probably be wise to hold our meeting at the same time. This would identify us with a group of national organizations of considerable importance and would make our organization better known to the Department of Superintendence. The professional hobnobbing thus encouraged would have certain values. Primarily, however, the plan would place the association in a position to make a greater contribution to the profession of education through a coördinated program. There would also be certain other minor advantages. Our members would consider it worth while, for example, to know that the reduced fare railroad certificates would always be good; and many would welcome the opportunity to attend the meetings of the Department of Superintendence on the same railroad fare.

Some might consider February an undesirable time for our annual meeting. Difficulties would certainly be encountered in arranging for a suitable meeting place, because of the competition for space at a time when several national organizations would be in session in the same city.

Such disadvantages may be looked upon as quite insignificant, however, in the light of the possibilities in the proposed program. Members of the association would do well to give the proposal some consideration pending the report of the committee of five authorized at the last meeting.

FORMER PRESIDENTS

CHARLES EDWIN FRILEY

1929

Charles Edwin Friley, sixteenth president of the American Association of Collegiate Registrars, was born in Ruston, Louisiana, August 27, 1887. He was brought to Texas in 1890 and the family settled at Bryan in 1894. He graduated from the Bryan High School in 1903 and from the Sam Houston Teachers College in 1905. He attended Baylor University from 1905 to 1907, following which he taught in the public schools of Texas for three years.

In 1910, he entered the Agricultural and Mechanical College of Texas as a Junior in the course in Agricultural Education. In December, 1911, he was appointed Secretary of the College, which title was changed to Registrar in January, 1913. This position he held until June, 1924. In the meantime he completed his undergraduate work and was awarded the degree of Bachelor of Science in 1919.

The summers of 1920, 1921, 1922, and 1923 were spent in Columbia University, completing the work of the degree of Master of Arts in Educational Administration, which was conferred in August, 1923.

The first half of the year 1924 he spent in Europe in company with Dr. William Bennett Bizzell, now President of the University of Oklahoma, studying the educational and agricultural conditions of the Western European countries. Upon his return in June, 1924, he was appointed Dean of the School of Arts and Sciences at Texas Agricultural and Mechanical College, retaining at the same time the title of Registrar.

He attended the University of Chicago during the summers of 1926 to 1929, inclusive, studying in the field of higher education. In the summers of 1930 and 1931 he was visiting professor of higher education in the same institution.

In June, 1929, he was awarded the honorary degree of Doctor of Laws by Simmons University, Abilene, Texas, of which institution his father was first president.

In May, 1932, he was appointed Dean of the Division of Industrial Science at Iowa State College of Agriculture and Mechanical Arts, and entered upon his new duties the following September.

Mr. Friley has always been keenly interested in all organizations and activities dealing with the several aspects of higher education. From 1917 to 1932 he was a member of the Texas Commission on Accredited Schools; from 1923 to 1927, he was Secretary of the Association of Texas Colleges, and President of that Association in 1928. In 1929 he served as President of the American Association of Collegiate Registrars. From 1924 to 1932 he was Secretary of the Southwest Athletic Conference. He was also Chairman of the Athletic Council at Texas Agricultural and Mechanical College during the same period. From 1928 to 1932 he served as a member of the Executive Council of the National Collegiate Athletic Association. From 1921 to 1932 he was Chairman of the Advisory Board of the Y. M. C. A. at Texas Agricultural and Mechanical College.

Since 1914, he has attended every meeting of the American Association of Collegiate Registrars except three. At the 1933 meeting at Chicago, the Association awarded him an honorary life membership.

The family consists of Mrs. Friley; Charles, Jr., 18; Billy, 16; and Frances, 8. Mrs. Friley, before her marriage, was Vera Bell Foreman of Dallas, Texas.

Mr. Friley is a member of the American Association of Collegiate Registrars, the American Association for the Advancement of Science, the National Society of College Teachers of Education, the American Historical Association, and Phi Delta Kappa. He is also a fellow of the Iowa Academy of Science, a Rotarian and a Royal Arch Mason. His hobbies are music and golf. His vacations are spent usually at the University of Chicago.

EDWARD J. GRANT

1930

Having spent most of his life in New York City or its vicinity, Edward J. Grant, seventeenth president of the American Association of Collegiate Registrars completed his college education in Columbia University where he received the degree of Bachelor of Arts in June, 1909. With a view to preparing himself for a business career, he took the general course in college with economics as one of his sequences.

Wall Street had its attractions in those days and that is where he found himself after graduation, with a financial institution which had previously given him summer employment. In March, 1910, however, he accepted a position offered him in the office of the Registrar at Columbia University, where he began as a clerk. The educational field seemed more attractive to him than Wall Street. In 1915 he received his appointment as Assistant Registrar and in 1919 he became Acting Registrar. He was finally appointed Registrar of the University in 1920.

Within two weeks after his call to the University in 1910, he met Miss Eva Alanne Rogers whom he married in July, 1913. They have two daughters, Flora Elizabeth, born in 1914, and Carolyn Rogers, born in 1919. The family resided in New York City until the fall of 1921 when they moved to Old Greenwich, Connecticut, where they settled in their own home. Eyebrows are lifted when Ed Grant's A.A.C.R. friends are told he commutes to work daily from New England! But Old Greenwich is only thirty miles away from his office.

Though as a student he participated on a small scale in football and track, his present athletic hobbies run to the gentler games of cowboy pool and ping pong. These are among the major sports at the Men's Faculty Club. He and Frank Hagemeyer have engaged in many a game of ping pong, in which the rivalry has been very keen as indicated by the score of 58 sets to 65 in the latter's favor since January 1, 1933.

By virtue of his office he has served as Supervisor of Examinations at Columbia University and as Secretary of the University Committee on Athletics. From 1931 to 1933 he has been Secretary of the Men's Faculty Club and is now member of the Executive Committee. He is a member of the Columbia University Club where he has served on the Committee on Admissions for the past seven years. From his college days his fraternal affiliation has been with Sigma Nu. He has held the position of Clerk of the First Congregational Church in Old Greenwich for the past seven years.

In 1933 he was awarded the Sigma Nu medal "for Conspicuous Columbia Alumni Service" with the following citation: "True and tested officer of the University and member for more than a decade and Secretary of the Committee on Athletics." He has served as vice-president of the American Association of Collegiate Registrars in 1928-29 and as president in 1929-30.

JOHN PEARCE MITCHELL

1931

John Pearce Mitchell, eighteenth president of the American Association of Collegiate Registrars, was born on June 4, 1880, at Providence, Rhode Island. At a very tender age he began to set the stage for a permanent residence in California. His precocity in this respect is disclosed by his statement that soon after his birth the New England climate became troublesome and, after some three years abroad, chiefly in Germany, he made his first trip to California in 1887.

Another year was spent in Germany before he finished his secondary schooling at the Belmont School, not far from Stanford University. The New England ancestry demanded admission to Harvard College, but, after that claim was satisfied, yielded to the West and allowed him to complete

his education at Stanford University. His Bachelor's degree was conferred in 1903, followed by his Master's in 1904. After another year in Germany, at the University of Leipzig, his Ph.D. was conferred by Stanford in 1909.

Meanwhile, an interest in chemistry developed into a habit. He began as a laboratory assistant in 1901 and attained a professorship in 1920. His special field was inorganic chemistry and he was especially interested in teaching beginners the right point of view and the basic concepts of the science. The experiment, as he calls it, is still in progress.

Interest in various practical applications of chemical knowledge stimulated him to engage in research which resulted in the publication of studies dealing with the analysis of water supplies and the significance of the results, the effects of smelter smoke on vegetation, and the distribution of dustfall near cement plants.

Administrative problems had an irresistible fascination for him and gradually absorbed more and more of his time. Beginning with the administration of the Lower Division, established at Stanford University in 1920, the path led to the position of Registrar in 1925. The normal accumulation of incidental duties followed, both within and without the University, and included opportunities for helping with the organization of the Pacific Coast Association of Collegiate Registrars, contributing to the work of the American Association of Collegiate Registrars, and serving locally on the Palo Alto City Council.

He was married in 1905 to Helen Waldo. There are four children, Laura (1908), John Waldo (1910), Sidney Pearce (1913), and Mary (1915). The summer home is at Camp Sierra, near Lake Tahoe, and that indicates that an outdoor life, with some fishing, is his most attractive recreation, and, as a matter of fact, affords a never ending source of pleasure and relaxation.

Membership in various organizations have accumulated, beginning with Delta Upsilon, Phi Beta Kappa, Sigma Xi, followed by the American Chemical Society, the American

Association for the Advancement of Science, and the American Institute of Chemical Engineers, and, a little later, the Pacific Coast Association of Collegiate Registrars and the American Association of Collegiate Registrars.

RYLAND NEWMAN DEMPSTER

1932

Ryland N. Dempster, nineteenth president of the American Association of Registrars, was born in Relay, Baltimore County, Maryland, on January 29, 1895. His early education was obtained in the public schools of Baltimore County and Baltimore City. He graduated from Baltimore Polytechnic Institute in June, 1914.

In October, 1914, he entered the Engineering School of Johns Hopkins University, but his conventional education was interrupted in 1917 when he enlisted in the United States Naval Reserve Force. The first three months he spent with the "Black Gang" greasing engines and coaling ships. By the end of December he was relieved of this "delightful" occupation and was transferred to the Officers' Training School at Hampton Roads, Virginia. After about two months there he was appointed to the Aviation ground school at the Massachusetts Institute of Technology. This course was completed by June, after which he was transferred to Akron, Ohio, for lighter-than-air flying. He remained in the service until August, 1919, when he resigned to accept a teaching position at the Baltimore Polytechnic Institute where he had completed his secondary education. Meanwhile he was continuing his study at Johns Hopkins, and had received the degree of Bachelor of Science in Engineering (extra-ordinem) in 1918. His degree of Master of Arts was conferred, also by Johns Hopkins, in 1922.

Mr. Dempster was appointed Assistant Registrar at Johns Hopkins in September, 1920, and Registrar in September, 1923, so, professionally speaking, he is now ten years of age. During these ten years he has served the American Associ-

ation of Collegiate Registrars well. He was Editor of the *Bulletin* for three years, 1925-1928; First Vice-President, 1927-1928; and President in 1931-1932. He has been a member of the Committee on Special Projects from its establishment to the present date.

Other organizations have also profited by having him as a member. He served the Association of Colleges and Secondary Schools of the Middle States and Maryland as an institutional representative for a number of years, and as a member of the Committee on Institutions of Higher Education from 1928 to the present. He served the American Association of Universities as Inspector for the Committee on Classification of Universities and Colleges. He is a member of Delta Upsilon Fraternity.

He was married on October 19, 1918, to Miss Dorothy Holt Emmart. There are three children, two daughters, ages ten and fourteen, and a son, age twelve.

He reports that his hobbies are tennis, golf, coon-hunting, and goat raising. The development of the goat-raising hobby is worth relating. When he and his family moved to Glyndon, their present home, twenty miles from Baltimore, he was confronted with the problem of clearing about an acre of land of weeds and honeysuckle. Being of Scotch descent, he sought the easiest and cheapest way, which turned out to be the occupation of the land by two goats. These he secured from the cellar of an East Baltimore tenement house. The *two nannies* thus secured not only cleared the lot, but also *produced sufficient off-spring** so that there are now seven goats doing duty as lawn mowers and performing various other useful gastronomic tasks.

Under "Civic Activities" he reveals an interest in the Boy Scouts, but has not succumbed to Rotarianism. He is simply John Smith, Taxpayer, he says,—and a very disgruntled one at that.

* The Editor is not willing to vouch for the biology involved in this feat.

PROFESSIONAL AND PERSONAL NEWS

SECTIONAL MEETINGS

The Michigan Association of Collegiate Registrars met at Ann Arbor with the Michigan Schoolmasters Club, with thirty-six in attendance, April 29, 1933. The following topics were discussed: "Liberalizing Entrance Requirements," led by John H. McKenzie, Port Huron Junior College; "Revised Graduation Requirements," led by D. L. Rich, University of Michigan; and "Modifications Which We Must Anticipate as a Consequence of Our Economic Situation," led by J. H. Bacon, Kalamazoo College.

Mr. John H. McKenzie of Port Huron Junior College was elected president for the ensuing year.

The Annual Meeting of the Illinois Association of Collegiate Registrars will be held toward the end of October (definite date not set at this writing) at Rosary College, River Forest, Illinois. Sister Mary Fideles, Registrar, will be the hostess.

One of the features of the program will be a discussion of the proposed standardized institutional enrollment reports, led by Mr. G. P. Tuttle Registrar of the University of Illinois and Mr. George E. Van Dyke, Acting Technical Secretary of the National Committee on Standard Reports.

The officers of the Association are:

John C. McHugh, DePaul University, President.

Marjorie Shank, Southern Illinois State Normal, Vice President.

Anna Jewett LeFevre, Bradley Polytechnical Institute, Secretary-Treasurer.

The Summer Meeting of the Colorado-Wyoming Registrars Association was held at the State Teachers College at Greeley, Colorado, August 4 and 5, 1933. Fred E. Aden, Registrar of the University of Colorado, President presided. Those present also attended the College Personnel Conference held on the same dates.

The principal speakers were L. M. Terman of Stanford University and Ben Wood of Columbia University. Many problems of the college personnel program were discussed in forum sessions.

New officers will be elected in the Autumn Meeting.

REORGANIZATION

Louisiana Polytechnic Institute has changed from the quarter plan to the semester plan, the quarter plan having been followed since 1919.

Young Harris College has adopted the quarter system and maintains a Summer School for the benefit of local teachers.

The Georgia State College for Women, Milledgeville, Georgia, has changed to the quarter system.

Miss Augusta Rentz, Registrar of the Georgia State Womans College, Valdosta, Georgia, reports that her college, which has heretofore been functioning as a teacher-training-liberal arts college, has been made the liberal arts college of the entire state system. This reorganization is the result of a recent survey of higher education in the state.

The Registrar's Office at the University of Chicago has undergone a fundamental reorganization. The two branches of the office, the Office of Admissions and the Recorder's Office, have been made into two coordinate offices under the Dean of Students. The name of the Recorder's Office has been changed to the Registrar's Office and Ernest C. Miller's title has been changed from Recorder to Registrar. Roy W. Bixler has charge of the Office of Admissions as Director of Admissions.

APPOINTMENTS AND CHANGES IN POSITION

Miss Isobel Tanton, former Associate Registrar of the University of Western Ontario, was married on July 1 to Colonel R. J. Gordon, M. D., D. P. H., of the Medical

Branch of the Pensions Division of the Department of Militia and Defence of Canada.

Miss Vivian Day, formerly Registrar of Oakland City College, is now employed in the Registrar's office of the University of Louisville.

Wyatt W. Hale, Registrar of Birmingham-Southern College, has been appointed Acting Dean to fill the vacancy created by the resignation of Dean Gilbert Wilcox Mead to accept the presidency of Washington College, Chestertown, Maryland. Mr. Hale's new title is Registrar and Acting Dean.

Miss Irene McDonald, who has been a student assistant to the Registrar of Transylvania College, has been appointed Assistant Registrar, a full time position. Miss McDonald received the Bachelor of Arts, cum laude, from Transylvania College, June 5, 1933.

Miss Olga Miller, a graduate of the University of Western Ontario and of Simmons College, Boston, has been added to the Registrar's staff at the University of Western Ontario.

Miss Jean Joyce has been appointed Assistant Registrar at Queens University, assuming most of the duties and responsibilities of the late Miss Alice King.

P. E. Shellenberg, Ph.D., University of Minnesota, 1930, has been appointed as Personnel Director at Bethel College, Newton, Kansas.

Fred E. Nessell, Registrar of Washington University, has been appointed Lecturer in English for the year 1933-1934. Mr. Nessell will assist in the freshman course in English rhetoric and composition.

Franklin I. Sheeder has been appointed to the newly created position of Registrar of Ursinus College. Formerly, the functions of the registrar were carried on by the Assistant to the President. Mr. Sheeder's title is Registrar and Associate Professor of Religion.

Mr. Edwin H. Scott has been appointed Dean of the College and Registrar at the Georgia State College for Women, Milledgeville, Georgia. He served on a committee for standardizing the work of the Registrar for the University of Georgia System, as recently organized, consisting of sixteen institutions.

Guy A. Simmons, Registrar of Hendrix College and Professor of Latin, served his institution as Acting Treasurer during May, June, July, and August, from the resignation of the Treasurer to the appointment of his successor.

DEGREES AND HONORS

Edward J. Grant, Registrar of Columbia University, was recently presented by Sigma Nu with a medal "for conspicuous Columbia Alumni Service." Mr. Grant is a charter member of the Delta Gamma chapter at Columbia, being number two in the chapter when it was installed in 1908.

His citation, upon being presented with the medal was as follows: "Edward John Grant of the Class of 1909, Columbia College, true and tested officer of the University and member for more than a decade and secretary of the Committee on Athletics."

F. T. Barnard, Registrar of Washington State College was recently honored by a charter membership in a recently organized Quarter-Century Club. Membership in the club is limited to those who have had twenty-five or more years of service.

Floyd B. Lee, Registrar of Kansas State Teachers College at Hayes, was awarded the honorary degree of Doctor of Science, by the College of Emporia, on May 29, 1933.

BIRTHS—MARRIAGES—DEATHS

C. R. Singleterry, Registrar of Aurora College, announces the arrival of a daughter, Constance Ann, on June 23, 1933.

E. C. Dyrners could think of no news to report except the arrival of a son, C. Theodore, on June 4, 1933.

John C. McHugh, Registrar of De Paul University, is the traditionally proud father of a daughter, Ruth Cecille, born August 1.

Miss Mary Frazer Smith, Recorder of Wellesley College, died suddenly on August 4, 1933, of a heart attack. Miss Smith graduated from Wellesley in 1896, was an assistant in the Secretary's office in 1900 and 1901, was Secretary from 1901 to 1915 and has been Recorder since.

MISCELLANEOUS

The numerical restriction of women students at Stanford University, established by charter, has been removed. The number of women, heretofore limited to five hundred, may now grow proportionately with that of the men, but the number of women shall never equal the number of men. This restriction is retained in deference to Mrs. Stanford who desired that, in the University that was founded as a memorial to her only son, the women should never outnumber the men.

The reduction of the University's income by the depression made it possible to accomplish this change which has long been recognized as educationally desirable.

The Eighth Annual Institute for Administrative Officers of Higher Institutions was held at the University of Chicago on July 12, 13, and 14. The central theme of the program was "Readjustments in Higher Education to Meet New Conditions." Consideration was given to readjustments affecting instruction, organization of higher education, student life, and revenue. The proceedings of this institute will be published this year as heretofore and distributed by the University of Chicago Press.

The Second Conference of Administrative Officers of Public and Private Schools was held at the University of Chicago July 17 to 21. The following general topics were considered: "Pupil Guidance," "Relation of the Schools to the Public," "The Scientific Study of Children," "Instruction in Special Fields," and "Effecting Economies through Scientific Administration."

The State of Iowa has the distinction of having passed the first law for the perpetuation of the records of defunct institutions as suggested by the American Association of Collegiate Registrars. It will be recalled that a model bill was recommended by the Committee on Special Projects and adopted by the Association at the 1932 meeting. The text of the bill, as it finally became a law, follows:

A BILL FOR

An Act relating to the perpetuation of credits earned by students in institutions of higher learning which may be discontinued.

Be It Enacted by the General Assembly of the State of Iowa:

Section 1. That the trustees or officers of any institution of higher learning, whether incorporated or not, upon going out of existence or ceasing to function as an educational institution must transfer to the office of the registrar of the State University of Iowa complete records of all grades attained by its students.

Section 2. That the office of the registrar of the State University of Iowa is hereby designated the central depository for the scholastic records of those educational institutions in this state which may hereafter cease to exist.

Section 3. That the office of the registrar of the State University of Iowa shall proceed to collect the scholastic records of those educational institutions which may become extinct, and he shall have the supervision, care, custody, and control of said records.

Section 4. That the registrar of the State University of Iowa shall prepare transcripts of such scholastic records and when requested to do so he must furnish a copy of the said transcript to a former student. Whenever such transcript is made and after it has been compared with the original, it shall be certified by the registrar of the State University of Iowa, and, thereafter, it shall be considered and accepted as evidence for all purposes the same as the original would be.

Section 5. For the preparation of each of such transcripts the State University of Iowa may charge a nominal fee, not to exceed five dollars (\$5.00), to compensate the institution for the actual labor of recording the credits, preparing a transcript, postage, etc.

Section 6. That the members of the board of trustees and the officers of an institution of higher learning who do not file, in accordance with the provisions of this act, the record of grades in the office of the registrar of the State University of Iowa within twelve (12) months after the said institution has been closed or has ceased to function as an educational institution, may be fined an amount not to exceed \$500.00.

Section 7. That the office of the registrar of the State University of Iowa is hereby designated the central depository for the records of any institution of higher learning which prior to the passage of this act may have ceased to exist, provided the custodian of the said records or former officials of the institution may wish to take advantage of the provisions of this act.

The *Kentucky Personnel Bulletin* announces that the Association of Kentucky Colleges, in cooperation with the Kentucky Association of Secondary School Principals, has organized a cooperative testing program for Kentucky colleges and high schools under the head of the Kentucky Cooperative Testing Service.

The American Council Psychological Examination and the Kentucky Classification Test are being used and it is hoped later to introduce the use of achievement tests.

Arthur H. Larson Registrar of the Eastman School of Music of the University of Rochester, reports that the National Association of Schools of Music 1933 Handbook is ready for distribution. The National Association of Schools of Music is a national organization that attempts to accomplish in music what the various regional accrediting agencies have done in the academic field. The Handbook gives the directory of forty-eight institutions that are accredited members of the Association. In addition there are nine schools admitted to provisional membership and five schools the first two years of whose courses have been accredited. The booklet gives the officers and commissions for 1933. Other information includes the constitution and by-laws, the code of ethics, the minimum curricula, specimen examinations, and the rules and procedure as adopted by the Association. Copies of the current publication may be obtained from Burnet C. Tuthill, Secretary, 3547 Shaw Avenue, Cincinnati, Ohio.

Harland Mead, Dean and Registrar of Washington Junior College, Washington, Iowa, and Mrs. Mead have discovered a novel method of neutralizing depression effects. Mrs. Mead recently won a prize of \$3,500 in a word-building con-

test conducted by the Hollywood Marvel Products Company. This is one activity in which there is no unemployment and we are grateful to Mr. Mead for reminding us of it as a source of income.

Melvin E. Mattox, Registrar of the Eastern Kentucky State Teacher's College, Richmond, Kentucky, is interested in the problem of preventing students from graduating on an excessive amount of junior college credit and requests those who have studied the problem to communicate with him.

Fred E. Nessell, Registrar of George Washington University, has two extra copies of the Proceedings of the Twelfth Meeting (Chicago, 1924) and one extra copy of the Proceedings of the Thirteenth Meeting (Baltimore, 1925) which he will donate to any member of the Association who can make use of them.

BULLETIN WILL PAY FOR BEST CONTRIBUTION

The Executive Committee of the Association has authorized the Editor of the *Bulletin* to pay twenty-five dollars for the best article submitted by a registrar or a member of a registrar's staff on a problem in the registrar's field. The selection will be made by the Editor and the Associate Editors acting as a committee. Following are the conditions of the competition:

1. Competitors will choose their own topics, but articles must be based upon controlled studies.

2. Articles must not exceed eight *Bulletin* pages in length, approximately 2500 words if there are no tables or charts.

3. Those who wish to enter the competition must notify the Editor not later than October 15, 1933, stating the nature of the study that will be reported.

4. All articles entering the competition must be in the hands of the Editor not later than February 1, 1934, although they will be receivable at any time.

5. The Editor of the *Bulletin* reserves the right to publish any article submitted.

6. The Editor of the *Bulletin* reserves the right to withhold the payment of the twenty-five dollars if, in his judgment, none of the articles submitted merit publication.

NEW BOOKS

Comprehensive Examinations.—The old problem of how and when to examine the product of the college course has a new and vigorous treatment in the recently published report of the investigation for the Association of American Colleges of the use and nature of comprehensive examinations.¹

The study will prove decidedly enlightening regarding the status of such testing programs both in this country and in Europe, presenting a wealth of information in both statistical and descriptive form. The report consists of two parts either of which may be read independently, depending on one's need or inclination. The first part is a description of all current practices found, together with frequent summaries and direct or implied recommendations. A minimum of desirable tables, graphs, and figures are given in this section, to serve as key ideas around which to group the general discussions. All conclusions and recommendations are based on data found in the second part, or the "Quantitative Studies." In spite of this seeming division the organization and treatment of the two sections is such that they are mutually supplementary, and no one interested in the problem can afford to dispense with either part.

The study makes use of a variety of approaches: personal interviews, questionnaires, attitude scales, reports, analysis of factual documents, and inspection of programs at work in many colleges.

Special emphasis is given to the relation between the honors work and the comprehensive examination. Several representative American programs are analyzed in detail, and frequent comparisons or contrasts with the English tutorial system are drawn throughout the book. Returned Rhode's scholars now at work in American institutions con-

¹ Jones, Edward Safford, *Comprehensive Examinations in American Colleges*. New York, N.Y.: The Macmillan Company, 1933. Pp. xix+436. \$2.50.

stituted one of the groups from whom facts and attitudes were obtained.

Three major topics are worth noting: systems of education involving comprehensive examinations, the administration of the comprehensive examination, and preparing the student for the comprehensive examination. Of these, the latter occupies a deservedly large space. Other phases discussed are: the origin and philosophy of, the types and levels of, and the improvement of the examination. In the quantitative studies, special chapters of the plans now in operation at the University of Buffalo and Antioch College are presented, while a number of other college plans are introduced in the descriptive section of the book.

In the general summary and conclusions, the author ends on a note of warning: "The defect in this enthusiasm (for the adoption of a comprehensive examination plan) lies in the frequent adoption of the name and idea of comprehensive examining without careful consideration of its merits, its issues, and the provisions essential to success. Unless these problems are given consideration, the general examination may be destined for the same rapid rise and subsequent comparative decline in popularity which has attended the honors program." In view of the present conditions facing most colleges this warning is very timely, and the careful study of the book is to be recommended.

CHRISTIAN MILLER.

Studies of College Problems and the Depression.—The literature dealing with higher education has had several very significant additions during the past few months, which is rather to be expected, since the general economic set-up brought to a head many points of friction and dissatisfaction with the place and service of colleges and universities, which in normal times were more readily glossed over. Of particular interest to college administrators are the following: Dr. John Dale Russell's *Efficiency in College Management*, published as a bulletin of the Bureau of Cooperative Research, Indiana University, School of Education, July 1931;

The Twenty-Seventh Annual Report of the President and Treasurer of the Carnegie Foundation for the Advancement of Teaching; *The State and Higher Education*, published by the Carnegie Foundation for the U. S. Office of Education; and *Salaries and the Cost of Living in Twenty-Seven State Universities and Colleges, 1931-32*, a statistical study prepared by Viva Boothe, and published by the Ohio State University Press.

Dr. Russell sees the problem facing the institutions as a two-fold one: how to secure the necessary income for the operation of the school, and how to obtain the greatest educational returns for the funds expended. Of these two problems, the latter receives by far the most thorough attention. Many specific ways are indicated by which the program of the college can be improved, at no additional expense, or changes that can be made which will effect substantial savings. So many types and grades of "inefficiency" are pointed out that the institution is rare which could not find several of these in its practices and be able to use them as levers to upset the ogre of deficits. The greater part of the volume is devoted to pointing out shortcomings in present college practice.

The constructive contribution of the study is the "technique for estimating the amount of effective educational expenditure per student." If this technique is to be of most service, the registrar of each institution must be familiar with this type of approach, and be able to draft the required information from all sources about the college. The success of the statistical work involved would largely depend upon the registrar, since the general type of information needed centers about his office.

The Carnegie Foundation's Report discusses in its parts II and III many of the puzzling problems now facing higher education. The suggestions given, aiming at their solution, should lead educators into a less strained atmosphere. The general economic situation is the screen or background against which the questions are interpreted. Dr. Henry Suzzallo makes three major recommendations for meeting

actual or threatened deficits without impairing educational efficiency.

1. That there must be a more effective distribution of services among institutions.

2. That institutional offerings of major lines of study must be reduced.

3. That the teaching should be reorganized so as to emphasize the learner. In connection with this last topic, he makes the following vigorous statement: "The whole system of college credits is now educationally bankrupt." This is of course followed by plans for improvement. Of particular value for the registrar is Dr. W. S. Learned's chapter on *Admission to College*, made as a contribution to the Study of the Relation of Secondary and Higher Education in Pennsylvania. This article is a thoroughgoing analysis of the philosophy of admissions and evaluation of various methods in vogue or contemplated. This article is also printed in the January, 1933, issue of *The Educational Record*.

There is a striking similarity in the conclusions of Dr. Russell's study regarding the general program of higher education in America, and the first of the three major recommendations in Dr. Suzzallo's Report. The implication is that there should be a conscious organization and oversight of "the general service of higher education," since the present "condition approaches chaos."

The Office of Education's study of *The State and Higher Institutions*, is a presentation of facts in tabular and diagrammatic form. The discussion is confined to explanations of the data given, and to illustrative interpretations based thereon. No conclusions and recommendations are made. These are left to the reader. The book is intended as a guide for state legislatures and educational leaders in their need for authoritative information in formulating policies and practices of higher education faced with the stringent need for curtailment of expenditures. There are three separate studies presented in the volume:

1. Part I deals with the Control and Curricular Offerings

of institutions of Higher Education in Ten Selected States.

2. Part II concerns The Trend toward Unified Control.

3. Part III treats of Significant Variations by States.

While the book is intended for a large field of service, it will be of great use in each individual college also, for the wealth of data is so varied and complete that there is almost no end to the number and types of comparative studies that can be built up from it.

Dr. Boothe's volume touches the same problem on another side: the economic status of the persons at work in higher education. The conclusion arrived at, from a study of the income and expenditures of 802 administrators and teachers, institutional salary scales, and various cost of living indexes, is that this group of workers have, on the whole, fared rather badly in the scramble for existence obtaining since the beginning of the World War. Admittedly, the data present only a cross section of a small number of the total group of administrators and faculty members, but the facts as shown should prove provocative.

The data are presented with 1913 as a base and show rather convincingly that only for a short time following 1929 was this group of educators at any slight advantage over prewar times in the relation of income and the cost of living. This advantage will again be counterbalanced by the quite generally drastic salary cuts which the profession has experienced in the last year or two. This conclusion agrees with that found in a similar study of the income and cost of living of women teachers in the public schools of Portland, Oregon, and recently published in a special issue of the *Bulletin of Reed College*.¹

The administrator anxious to give the best service to his institution will find much stimulating reading, often in unexpected sources, and easily overlooked, and it is for that reason that these thumbnail reviews are presented.

CHRISTIAN MILLER

¹ Miss Jessie M. Short, "Women's Wages Compared with Living Costs and General Community Standards, 1914-1932." *The Reed College Bulletin*, Vol. 12, No. 1, January 1933.

Changes and Experiments in Liberal-Arts Education.—That experimentation is widespread in liberal arts colleges is demonstrated by a recent report¹ of the National Society for the Study of Education. The scope of the report and its significance may be judged from an inspection of the chapter headings given below:

- I. Introduction
- II. Current Changes and Experiments in Liberal Arts Colleges.
- III. One Hundred Twenty-eight Outstanding Changes and Experiments.
- IV. The Major Phases of Experimental Change and Significant Illustrations.
- V. College Ventures in the Stimulation of the Intellectual Life.
- VI. American and English College Practices.
- VII. Some Notes on the Technique of Experimentation in a Liberal College.
- VIII. Liberalizing a Liberal Education.
- IX. Future Possibilities in Liberal-Arts Education: Some Expert Opinions.
- X. A Selected Bibliography on Changes and Experiments in Liberal-Arts Education.

Chapters II, III, and IV, pages 9 to 197, contain the meat of the report. Contributions are made in these chapters by Samuel P. Capen, Alexander Meiklejohn, Raymond Walters and others occupying similar positions of leadership in education.

The study was made by the American Association of University Women. The data were gathered from 315 liberal arts colleges by questionnaire and visitation. The scope of the changes reported is suggested by their classification in the report under the following heads: care and direction of students; curriculum and instruction; organization and ad-

¹ *Changes and Experiments in Liberal Arts Education*, Thirty-first Yearbook, Part II, National Society for the Study of Education. Bloomington, Illinois: Public School Publishing Co., 1932. Pp. ix+310. Cloth, \$2.50; paper, \$1.75.

ministration. No attempt has been made to evaluate the changes reported. Each institution reported the most important current changes or experiments and these were catalogued for the information of the reader who is warned not to think of the report as a list of certified experiments.

This is a report that should be on the desk of every college administrator who wants to be familiar with progressive education in the liberal arts college.

R. W. B.

Convenient Bibliographies.—Two convenient bibliographies¹ are being distributed by the American Association of University Women. These bibliographies are arranged on the basis of an outline. For example, *The Student Goes to College* is broken into several sub-topics such as "Who Should Go to College?" "Which College?" "Financing a College Education," etc. Each of these sub-topics is further subdivided with references under each subdivision. The other bibliography referred to is similarly organized.

R. W. B.

Name Code for Tabulating Machines.—William S. Hoffman, Registrar at the Pennsylvania State College has recently developed a name code for use with tabulating machines.² The code makes provision for alphabetization according to first names in the case of last names which occur very frequently, such as Smith or Jones. This feature enhances the value of a name code when used for the purpose of alphabetizing a large number of names. Mr. Hoffman states that he believes that in a distribution of names covering a five-year period at the Pennsylvania State College, he would not have as many as ten names behind any one of the divisions of his index and for a single year or summer session, not as many as two.

ELEANOR WHITELAW

¹ *Newer Aspects of Education*. Washington, D.C.: American Association of University Women, June, 1932. 54 mimeographed pp. \$0.50.

The Student Goes to College. Washington, D.C.: American Association of University Women, June, 1932. 48 mimeographed pp. \$0.50.

² Hoffman, William S., *Name Code for Use on Tabulating Machines*, Office of the Registrar, Pennsylvania State College, State College Pa. \$1.00.

IN THE JOURNALS

"Psychiatry in the College, a discussion of a Model Personnel Program," Anderson, V. V., and Kennedy, W., *Mental Hygiene*, XVI, 3, (July, 1932).

Dr. Anderson's proposed program grows out of his experience with college people in an industrial organization. Of 646 individuals selected by able business executives of this organization, 190 were unsuccessful not because of inferior intelligence, lack of education, or poor health, but because of deep-seated character traits that psychiatric study in college could have disclosed.

"Alma Mater's Slipper," Addison Hibbard, *The American Scholar*, II, 3, (May, 1933).

"A challenge to Colleges—'Puritan Oases in America'—to become, not hothouses for the nourishment of weaklings, but proving grounds for maturity and its consequent responsibilities." This is the paper read by Mr. Hibbard at the 1933 meeting of the American Association of Collegiate Registrars. It could not be published in the Bulletin, because it had been previously accepted by *The American Scholar*.

"The Private Thoughts of a Pedagogue," Bernard Idings Bell, *The American Scholar*, II, 1, (January, 1933).

Our colleges would sell "sweet odors of Araby to a people whose sense of smell is deadened."

"Higher Education and Modern Trends," George F. Arps, *The Journal of Higher Education*, IV, 6, (June, 1933).

A brief survey of the prospects for advancement in higher education. Points out signs of emancipation from timeworn entrance requirements and course requirements, in the increasing cooperation of universities and secondary schools and a growing interest in better college teaching.

"Needed Studies in Educational Administration," M. M. Chambers, *Educational Administration and Supervision*, XIX, 4, (April, 1933).

Suggests lines of investigation looking toward the freeing of public education from "selfish politics and predatory commercialism."

"Some Expensive Fallacies in American Education," Alonzo G. Grace, *Educational Administration and Supervision*, XIX, 3, (March, 1933).

The following fallacies are attacked: the quantity index of success in education, the freedom idea, the educational cafeteria, specialization, and the idea that the school must adjust to the child. Advocates rigid selection and rigid elimination throughout the educational system.

"A Letter to H. L. Mencken, American Mercury," J. Morris Jones, *School Executives Magazine*, Vol. 52, No. 10, (June, 1933).

A reply to Mencken's article, "Shall we Abolish School 'Frills,' Yes," in the May, 1933, number of the *Rotarian*. Mr. Mencken replies and the correspondence is continued in the July and August numbers of the same journal.

"The Relation of Education to the Success of Eminent Women," Bertha Beach Tharp, *Scientific Monthly*, XXXVII, 2, (August, 1933).

A study of one thousand women in "Who's Who in America" selected at random from this publication for 1929. The study shows a "trend for education to play an increasingly important role in the gaining of success by women."

The January, 1933, number of *The Educational Record* (Vol. 14, No. 1) is an especially interesting one. It contains a report of the Citizens Conference on the crisis in Education, called by President Hoover, which met in Washington, January 5 and 6, 1933.

It contains, also, the papers and addresses of the conference on College Admissions and Guidance, held in New York City on November 3, 1933, as follows:

"Admission to College," W. S. Learned; "The Guidance Function in the Secondary Schools and Colleges," J. B. Johnston; "Individual versus Institutional Accreditation," Frank L. McVey; "The American Council Cumulative Record Forms for Colleges and Secondary Schools," David Allan Robertson; "The Colleges Undermine Themselves: An Indictment of the Admission System," Henry W. Holmes.

"Educational Trends and the General Social Order," Charles H. Judd, *School and Society*, Vol. 38, No. 974, August 26, 1933.

"While the current trend in government, in redistribution of the population, and industry, in religion and in other aspects of the general social order all move forward at a rapid rate, the several rates of movement exhibited by the individual trends are not the same. The result is that the social order as a whole lacks internal integration."

The influence of education in the solution of social problems is great. The author pleads for the educational forces to appeal to the President of the United States through the Department of the Interior and through the Office of Education to do for American youth what he has done for American Finance and American Industry.

The September, 1933, number of the *Journal of Educational Sociology* is devoted entirely to the report of the section meeting on the teaching of sociology at the 1932 meeting of the American Sociological Society. The detailed reports, including more than three hundred colleges and universities, demonstrate the wide variation in the introductory sociology course in the following: objectives, general outlines, detailed concepts, and men deemed important. Out of this wide divergence, however, five rather commonly accepted objectives for the introductory course emerge as follows: (a) to inform and instruct the student concerning the nature of society, (b) to develop scientific attitudes, (c) to prepare the student for advanced sociological study, (d) to aid the student in more effective social living, and (e) to prepare the student for vocational training.

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